AUTHOR INDEX TO VOLUME 8

Abrikosov, A. A., The Present State of the Theory of Superconductivity (E/T) — 710

Al'tshuler, L. V., Use of Shock Waves in High-pressure Physics (E) — 52

Anufriev, Yu. D., (see Olekhnovich, N. M.) — 908

Baldin, A. M. and A. A. Komar, The Main Research Trends in Elementary Particle Physics (T) — 307

Bass, F. G. and V. M. Yakovenko, Theory of Radiation from a Charge Passing Through an Electrically Inhomogeneous Medium (T) — 420

Baz', A. I., V. I. Gol'danskiĭ, and Ya. B. Zel'dovich, Systematics of the Lightest Nuclei (E/T) — 177

Beresteskiĭ, V. B., Dynamical Symmetry of Strongly Interacting Particles (T) — 147

Blokhintsev, D. I., High-energy Physics and the Fundamental Principles of Modern Theory — 612

Bolotovskiĭ, B. M., Supplement of the Article by S. Devons, "Search for the Magnetic Monopole" (T) — 305

Bonch-Bruevich, A. M. and V. A. Khodovoĭ, Multiphoton Processes (T) — 1

Borovik-Romanov, A. S., (see Khariton, Yu. B.) — 798

Braginskiĭ, V. B., Gravitational Radiation and the Prospect of its Experimental Discovery (T) — 513

Brandt, N. B. and N. I. Ginzburg, Effect of High Pressure on the Superconducting Properties of Metals (E) — 202

Danilov, A. D. and G. S. Ivanov-Kholodnyĭ, Research on Ion-molecule Reactions and Dissociative Recombination in the Upper Atmosphere and in the Laboratory (E) — 92

Davydov, A. S., Nuclear Shape, Deformability, and Excited States (T/E) — 873

Dmitrievskiĭ, B. I., (see Dzhelepov, V. P.) — 253

Dobrotin, N. A., On Directions of the Development of High-energy Particle Physics — 614

Dzhelepov, V. P., V. P. Dmitrievskiĭ, B. I. Zamolodchikov, and V. V. Kol'ga, Strong-current High-energy Particle Accelerators—Meson Factories (E) — 253

Fabelinskiĭ, I. L., Study of the Fine Structure of the Lines of Scattered Light and the Propagation of Hypersound (T/E) — 637

Feĭnberg, E. L., Cosmic Rays and Elementary Particle Physics (T) — 619

Feĭnberg, E. L., (see Ginzburg, V. L.) — 501

Fock, V. A., More About the Energy-time Uncertainty Relation (Reply to Aharonov and Bohm) (T) — 628

Frank, I. M., Transition Radiation and Optical Properties of Matter (T) — 729

Ginzburg, N. I. (see Brandt, N. B.) — 202

Ginzburg, V. L., A. D. Sakharov, and E. L. Feĭnberg, Igor' Evgen'evich Tamm (On the occasion of his seventieth birthday) — 501

Ginzburg, V. L. and S. I. Syrovat-skiĭ, Cosmic Magnetic Bremsstrahlung (Synchrotron Radiation) (T/E) — 674

Gol'danskiĭ, V. I., Two-proton Radioactivity (E/T) — 770

Gol'danskiĭ, V. I. (see Baz', A. I.) — 177

Grishin, V. G., Resonance Interactions of Elementary Particles (T/E) — 379

Il'ina, A. A., Spectral Properties of Individual Cells of the Retina of the Human Eye (E) — 417

Iogansen, L. V., Thin-film Electron Interferometers (E) — 413

Ivanov-Kholodnyĭ, G. S. (see Danilov, A. D.) — 92

Kaganov, M. I. (see Lifshitz, I. M.) — 805

Kapitza, P. L., Lomonosov and World Science — 720

Karlov, N. V. and O. N. Krokhin, The 1964 Nobel Prize in Physics — 143

Keldysh, L. V., Superconductivity in Nonmetallic Systems (T) — 496

Khaĭkin, M. S. (see Khariton, Yu. B.) — 798

Khariton, Yu. B., V. N. Kondrat'ev, A. S. Borovik-Romanov, N. V. Zavaritskiĭ, M. P. Malkov, M. S. Khaĭkin, and Yu. V. Sharvin, Aleksandr Iosifovich Shal'nikov (On his 60th birthday) — 798

Khodovoĭ, V. A. (see Bonch-Bruevich, A. M.) — 1

Khokhlov, R. V., On Nonlinear Wave Processes (T/E) — 642

Khutsishvili, G. R., Spin Diffusion — 743

Kol'ga, V. V. (see Dzhelepov, V. P.) — 253

Komar, A. A. (see Baldin, A. M.) — 307

Kondrat'ev, A. S. (see Khariton, Yu. B.) — 798

Konstantinov, B. P., Serafim Nikolaevich Zhurkov (On his sixtieth birthday) — 800

Kornfel'd, M. I., Experimental Error and Reliability of Simplest Experiments (E) — 299

Krokhin, O. N. (see Karlov, N. V.) — 143

Levin, B. Yu., The Origin of Meteorites (T/E) — 360

Lifshitz, I. M. and M. I. Kaganov, Some Problems of the Electron Theory of Metals, III. (T) — 805

Lopukhin, V. M. and A. S. Roshal', Electron-beam Transverse-wave Parametric Amplifiers (T/E) — 117

Malkov, M. S. (see Khariton, Yu. B.) — 798

Nesis, E. I., Boiling of Liquids (E) — 883

Nikolaev, V. S., Electron Capture and Loss by Fast Ions in Atomic Collisions (E) — 269

Novikov, I. D. (see Zel'dovich, Ya. B.) — 522

Okun', L. B. (see Zel'dovich, Ya. B.) — 702

Olekhnovich, N. M., Yu. D. Anufriev, and A. Ya. Parshin, Ninth All-union Conference on Low-temperature Physics — 908

Ovander, L. N., Nonlinear Optical Effects in Crystals (E) — 337

Parshin, A. Ya. (see Olekhnovich, N. M.) — 908

Pikel'ner, S. B. (see Zel'dovich, Ya. B.) — 702

Pletnev, V. D. (see Skuridin, G. A.) — 224

Podgornyĭ, I. M., Confinement of High-density Plasma in Adiabatic Traps (E/T) — 39

Pontecorvo, B., Elementary Particle Physics is Expensive! Is it Necessary? — 617

Presman, A. S., The Action of Microwaves on Living Organisms and Biological Structures (E) — 463

Raĭzer, Yu. P., Breakdown and Heating of Gases Under the Influence of a Laser Beam (E) — 650

Roshal', A. S. (see Lopukhin, V. M.) — 117

Rozenberg, G. V., International Symposium on the Investigation of Radiation Processes — 325

Sakharov, A. D. (see Ginzburg, V. L.) — 501

Sharvin, Yu. V. (see Khariton, Yu. B.) — 798

Shchelkin, K. I., Instability of Combustion and Detonation of Gases (E) — 780

Shpol'skiĭ, É. V., High-energy Physics and the Nature of Matter — 610

Skuridin, G. A. and V. D. Pletnev, Principal Hypotheses Concerning the Origin of the Earth's Radiation Belts (E) — 224
Slysh, V. I., Interferometers in Astrophysics (E) — 852
Strakhovskiĭ, G. M. and A. V. Uspenskiĭ, Experimental Verification of the Theory of Relativity (E) — 505
Suvorov, S. G., Einstein's Philosophical Views and Their Relation to His Physical Opinions (T) — 578
Syrovat-skiĭ, S. I., (see Ginzburg, V. L.) — 674
Talanov, V. I., L. I. Mandel'shtam's Work on the Theory of the Optical Image and Modern Quasioptics — 646
Tamm, I. E., Characteristic Features of the Work of Leonid Isaakovich Mandel'shtam — 633
Terent'ev, M. V., $K_2 \to 2\pi$ Decay and Possible CP-Nonconservation (T) — 445
Terent'ev, M. V., Possible Nonconservation of Combined Parity in Weak Interactions (T) — 140
Tulinov, A. F., Influence of the Crystal Lattice on Some Atomic and Nuclear Processes (T/E) — 864
Tyapkin, A. A., In Search of an "Irrational" Idea (T/E) — 630
Uspenskiĭ, A. V. (see Strakhovskiĭ, G. M.) — 505
Zababakhin, E. I., Cumulation of Energy and Its Limits (E) — 295
Zaĭdel', A. N., Concerning the Estimate of Measurement Errors — 145
Zamolodchikov, B. I. (see Dzhelepov, V. P.) — 253
Zavaritskiĭ, N. V. (see Khariton, Yu. B.) — 798
Zel'dovich, Ya. B., Classification of Elementary Particles and Quarks "For the Layman" (T) — 489
Zel'dovich, Ya. B. and I. D. Novikov, Relativistic Astrophysics, II (T) — 522
Zel'dovich, Ya. B., L. B. Okun', and S. B. Pikel'ner, Quarks: Astrophysical and Physicochemical Aspects (T) — 702
Zel'dovich, Ya. B. (see Baz', A. I.) — 177
Zhuravleva, T. S., Concerning a Note by V. V. Serkov (T) — 914
Yakovenko, V. M. (see Bass, F. G.) — 420

ANALYTIC SUBJECT INDEX TO VOLUME 8

Astrophysics
Biophysics
Electron Optics
Elementary Particles
Geophysics
High Pressures
History of Physics
Hydrodynamics of Combustion and Physical Chemistry
Instruments and Methods of Physical Measurements
Nuclear Physics of Medium and Low Energy
Optics
Personalia
Philosophical and Methodological Questions in Physics
Physics of Ions
Physics of Liquids
Plasma
Quantum Generators. Strong Fields
Quantum Theory
Radio Engineering
Relativity
Solid State and Theory of Metals
Superconductivity
Teaching and Methods of Physics

Astrophysics

Gravitational Radiation and the Prospect of its Experimental Discovery (T). V. B. Braginskiĭ — 513
Relativistic Astrophysics, II (T). Ya. B. Zel'dovich and I. D. Novikov — 522
Cosmic Magnetic Bremsstrahlung (Synchrotron Radiation) (T/E). V. L. Ginzburg and S. I. Syrovat-skiĭ — 674
Quarks: Astrophysical and Physicochemical Aspects (T). Ya. B. Zel'dovich, L. B. Okun', and S. B. Pikel'ner — 702

Biophysics

Spectral Properties of Individual Cells of the Retina of the Human Eye (E). A. A. Il'ina — 417
The Action of Microwaves on Living Organisms and Biological Structures (E). A. S. Presman — 463

Electron Optics

Thin-film Electron Interferometers (E). L. V. Iogansen — 413

Elementary Particles

Possible Nonconservation of Combined Parity in Weak Interactions (T). M. V. Terent'ev — 140
Dynamical Symmetry of Strongly Interacting Particles (T). V. B. Beresteskiĭ — 147
Strong-current High-energy Particle Accelerators—Meson Factories (E). V. P. Dzhelepov, V. P. Dmitrievskiĭ, B. I. Zamolodchikov, and V. V. Kol'ga — 253
Supplement of the Article by S. Devons, "Search for the Magnetic Monopole" (T). B. M. Bolotovskiĭ — 305
The Main Research Trends in Elementary Particle Physics (T). A. M. Baldin and A. A. Komar — 307
Resonance Interactions of Elementary Particles (T/E). V. G. Grishin — 379
$K_2 \to 2\pi$ Decay and Possible CP-Nonconservation (T). M. V. Terent'ev — 445
Classification of Elementary Particles and Quarks "For the Layman" (T). Ya. B. Zel'dovich — 489
High-energy Physics and the Nature of Matter. É. V. Shpol'skiĭ — 610
High-energy Physics and the Fundamental Principles of Modern Theory. D. I. Blokhintsev — 612
On Directions of the Development of High-energy Particle Physics. N. A. Dobrotin — 614
Elementary Particle Physics is Expensive! Is it Necessary? B. Pontecorvo — 617
Cosmic Rays and Elementary Particle Physics (T). E. L. Feĭnberg — 619
In Search of an "Irrational" Idea (T/E). A. A. Tyapkin — 630
Quarks: Astrophysical and Physicochemical Aspects (T). Ya. B. Zel'dovich, L. B. Okun', and S. B. Pikel'ner — 702

Geophysics

Research on Ion-molecule Reactions and Dissociative Recombination in the Upper Atmosphere and in the Laboratory (E). A. D. Danilov and G. S. Ivanov-Kholodnyĭ — 92
Principal Hypotheses Concerning the Origin of the Earth's Radiation Belts (E). G. A. Skuridin and V. D. Pletnev — 224
International Symposium on the Investigation of Radiation Processes. G. V. Rozenberg — 325
The Origin of Meteorites (T/E). B. Yu. Levin — 360

High Pressures

Use of Shock Waves in High-pressure Physics (E). L. V. Al'tshuler — 52
Effect of High Pressure on the Superconducting Properties of Metals (E). N. B. Brandt and N. I. Ginzburg — 202

History of Physics

Characteristic Features of the Work of Leonid Isaakovich Mandel'shtam. I. E. Tamm — 633
Lomonosov and World Science. P. L. Kapitza — 720

Hydrodynamics of Combustion and Physical Chemistry

Cumulation of Energy and Its Limits (E). E. I. Zababakhin — 295
Instability of Combustion and Detonation of Gases (E). K. I. Shchelkin — 780

Instruments and Methods of Physical Measurements

Experimental Error and Reliability of Simplest Experiments (E). M. I. Kornfel'd — 299

Nuclear Physics of Medium and Low Energy

Systematics of Lightest Nuclei (E/T). A. I. Baz', V. I. Gol'danskiĭ, and Ya. B. Zel'dovich — 177
Two-proton Radioactivity (E/T). V. I. Gol'danskiĭ — 770
Influence of the Crystal Lattice on Some Atomic and Nuclear Processes (T/E). A. F. Tulinov — 864
Nuclear Shape, Deformability, and Excited States (T/E). A. S. Davydov — 873

Optics

Nonlinear Optical Effects in Crystals (E). L. N. Ovander — 337

Study of the Fine Structure of the Lines of Scattered Light and the Propagation of Hypersound (T/E). I. L. Fabelinskiĭ — 637
L. I. Mandel'shtam's Work on the Theory of the Optical Image and Modern Quasioptics. V. I. Talanov — 646
Transition Radiation and Optical Properties of Matter (T). I. M. Frank — 729
Interferometers in Astrophysics (E). V. I. Slysh — 852

Personalia

Igor' Evgen'evich Tamm (On the occasion of his seventieth birthday). V. L. Ginzburg, A. D. Sakharov, and E. L. Feĭnberg — 501
Aleksandr Iosifovich Shal'nikov (On his 60th birthday). Yu. B. Khariton, V. N. Kondrat'ev, A. S. Borovik-Romanov, N. V. Zavaritskiĭ, M. P. Malkov, M. S. Khaĭkin, and Yu. V. Sharvin — 798
Serafim Nikolaevich Zhurkov (On his sixtieth birthday). B. P. Konstantinov — 800

Philosophical and Methodological Questions in Physics

Einstein's Philosophical Views and Their Relation to His Physical Opinions (T). S. G. Suvorov — 578

Physics of Ions

Electron Capture and Loss by Fast Ions in Atomic Collisions (E). V. S. Nikolaev — 269

Physics of Liquids

Boiling of Liquids (E). E. I. Nesis — 883

Plasma

Confinement of High-density Plasma in Adiabatic Traps (E/T). I. M. Podgornyĭ — 39

Quantum Generators. Strong Fields

Multiphoton Processes (T). A. M. Bonch-Bruevich and V. A. Khodovoĭ — 1
The 1964 Nobel Prize in Physics. N. V. Karlov and O. N. Krokhin — 143
Nonlinear Optical Effects in Crystals (E). L. N. Ovander — 337
Theory of Radiation from a Charge Passing Through an Electrically Inhomogeneous Medium (T). F. G. Bass and V. M. Yakovenko — 420
On Nonlinear Wave Processes (T/E). R. V. Khokhlov — 642
Breakdown and Heating of Gases Under the Influence of a Laser Beam (E). Yu. P. Raĭzer — 650
Transition Radiation and Optical Properties of Matter (T). I. M. Frank — 729

Quantum Theory

More About the Energy-time Uncertainty Relation (Reply to Aharonov and Bohm) (T). V. A. Fock — 628

Radio Engineering

Electron-beam Transverse-wave Parametric Amplifiers (T/E). V. M. Lopukhin and A. S. Roshal' — 117

Relativity

Experimental Verification of the Theory of Relativity (E). G. M. Strakhovskiĭ and A. V. Uspenskiĭ — 505
Gravitational Radiation and the Prospect of its Experimental Discovery (T). V. B. Braginskiĭ — 513
Relativistic Astrophysics, II (T). Ya. B. Zel'dovich and I. D. Novikov — 522

Solid State and Theory of Metals

Concerning a Note by V. V. Serkov (T). T. S. Zuravleva — 914
Spin Diffusion (T). G. R. Khutsishvili — 743
Some Problems of the Electron Theory of Metals, III (T). I. M. Lifshitz and M. I. Kaganov — 805
Influence of the Crystal Lattice on Some Atomic and Nuclear Processes (T/E). A. F. Tulinov — 864

Superconductivity

Effect of High Pressure on the Superconducting Properties of Metals (E). N. B. Brandt and N. I. Ginzburg — 202
Superconductivity in Nonmetallic Systems (T). L. V. Keldysh — 496
The Present State of the Theory of Superconductivity (E/T). A. A. Abrikosov — 710
Ninth All-union Conference on Low-temperature Physics. N. M. Olekhnovich, Yu. D. Anufriev, and A. Ya. Parshin — 908

Teaching and Methods of Physics

Concerning the Estimate of Measurement Errors. A. N. Zaĭdel' — 145